

CAPITAL WAREHOUSE, CONSORT WAY, BURGESS HILL

SL08556-HBPW-XX-XX-RP-C-0004 P02

DRAINAGE CALCULATIONS

SL08556

April 2026

DRAINAGE CALCULATIONS

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DOCUMENT HISTORY SHEET

Issue	Status	Purpose/Description	Originator	Checker	Date
P01	S4	First Issue	D. Spirydowicz	E. Parry	23/04/26
P02	S4	FEH model used	D. Spirydowicz	E. Parry	20/07/26

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1. INTRODUCTION

1.1. PROJECT DESCRIPTION

HBPW LLP have been tasked with preparing a drainage design for a proposed new warehouse and surrounding yard located of Consort Way, Burgess Hill.

The water collected from the roof will be discharged at a maximum rate of 10l/s from a proposed attenuation chamber. A hydrobrake device will be installed to limit the outflow from the tank. Introduction of an attenuation structure and a flow control device will provide a minimum 20% betterment on the maximum flow rates from the development.

1.2. EXISTING DRAINAGE FLOW RATES

The existing flows into a public sewer are provided in Table 1-1. These are based on no climate change allowance and a C_v of 1.0.

Table 1-1 Existing site discharge rates

Rainfall Annual Probability	Discharge Rate (l/s)
1 in 2 year	50.9
1 in 30 year	126.7
1 in 100 year	154.5

1.3. PROPOSED FLOW RATES

The proposed flows into a public sewer are provided in Table 1-2. These are based on C_v of 1.0.

Table 1-2 Proposed site discharge rates

Rainfall Annual Probability	Discharge Rate +45% CC (l/s)	Betterment Achieved
1 in 2 year	35.4	30.5%
1 in 30 year	100.8	20.4%
1 in 100 year	111.9	27.6%

1.4. DESIGN RAINFALL EVENTS

The system shall be checked against the following performance criteria:

- 1 in 2-year Storm Event. No surcharge.
- 1 in 30-year Storm Event + 45% climate change. No flooding
- 1 in 100-year Storm Event + 45% climate change. Controlled flooding not to affect any critical site activities or off-site areas.

The model considers both winter and summer storm profiles. Analysed storm durations are 15min, 30min, 60min, 120min, 180min, 240min, 360min, 480min, 600min, 720min, 960min, 1140min & 2160min.

2. MODEL SET UP

Figure 2-1 Model setup with element names

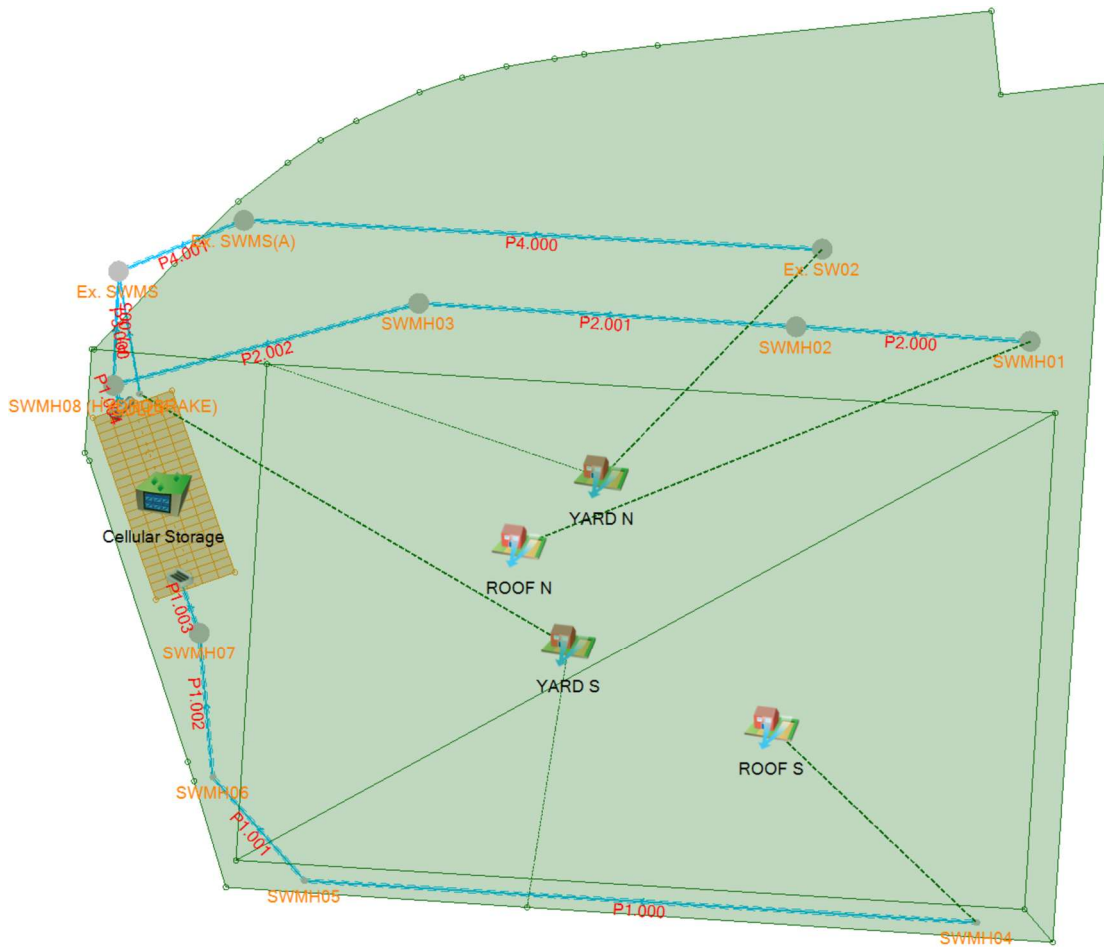
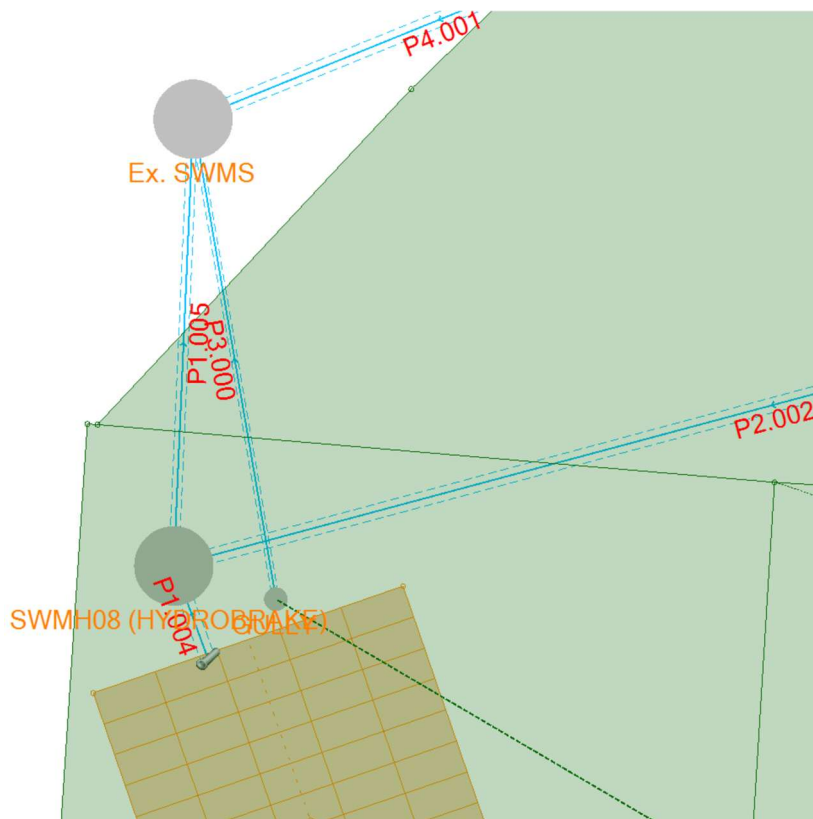


Figure 2-2 Close up of element names north of proposed tank



SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Inflows Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



 **ROOF N** Type : Catchment Area

Area (ha)

0.07

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

 **ROOF S** Type : Catchment Area

Area (ha)

0.07

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

 **YARD S** Type : Catchment Area

Area (ha)

0.029

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

 **YARD N** Type : Catchment Area

Area (ha)

0.108

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

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Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
SWMH01	Manhole	530223.374	118757.530	28.500	1.000	27.500	Circular	1.200
SWMH02	Manhole	530209.376	118758.399	28.500	1.090	27.410	Circular	1.200
SWMH03	Manhole	530186.804	118759.801	28.500	1.160	27.340	Circular	1.200
SWMH04	Manhole	530220.178	118722.743	28.600	0.600	28.000	Circular	0.600
SWMH05	Manhole	530179.975	118725.239	28.500	1.170	27.330	Circular	0.600
SWMH06	Manhole	530174.498	118731.441	28.500	1.230	27.270	Circular	0.600
SWMH07	Manhole	530173.678	118740.088	28.500	1.660	26.840	Circular	1.200
SWMH08 (HYDROBRAKE)	Manhole	530168.560	118754.897	28.300	1.650	26.650	Circular	1.200
Ex. SWMS	Manhole	530168.853	118761.718	28.830	2.250	26.580	Circular	1.200
Ex. SW02	Manhole	530210.941	118763.043	28.500	1.330	27.170	Circular	1.200
Ex. SWMS(A)	Manhole	530176.353	118764.756	28.540	1.716	26.824	Circular	1.200
GULLY	Manhole	530170.117	118754.389	28.500	0.500	28.000	Circular	0.350

Name	Lock
SWMH01	None
SWMH02	None
SWMH03	None
SWMH04	None
SWMH05	None
SWMH06	None
SWMH07	None
SWMH08 (HYDROBRAKE)	None
Ex. SWMS	None
Ex. SW02	None
Ex. SWMS(A)	None
GULLY	None

Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
SWMH01	Inlet	ROOF N	(None)	No Restriction
SWMH02	Inlet	P2.000	(None)	No Restriction
SWMH03	Inlet	P2.001	(None)	No Restriction
SWMH04	Inlet	ROOF S	(None)	No Restriction
SWMH05	Inlet	P1.000	(None)	No Restriction
SWMH06	Inlet	P1.001	(None)	No Restriction
SWMH07	Inlet	P1.002	(None)	No Restriction
SWMH08 (HYDROBRAKE)	Inlet	P2.002 P1.004	(None)	No Restriction
Ex. SWMS	Inlet	P1.005	(None)	No Restriction
	Inlet (1)	P4.001	(None)	No Restriction
	Inlet (2)	P3.000	(None)	No Restriction
Ex. SW02	Inlet (1)	YARD N	(None)	No Restriction
Ex. SWMS(A)	Inlet	P4.000	(None)	No Restriction
GULLY	Inlet	YARD S	(None)	No Restriction

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
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Outlets			
Junction	Outlet Name	Outgoing Connection	Outlet Type
SWMH01	Outlet	P2.000	Free Discharge
SWMH02	Outlet	P2.001	Free Discharge
SWMH03	Outlet	P2.002	Free Discharge
SWMH04	Outlet	P1.000	Free Discharge
SWMH05	Outlet	P1.001	Free Discharge
SWMH06	Outlet	P1.002	Free Discharge
SWMH07	Outlet	P1.003	Free Discharge
SWMH08 (HYDROBRAKE)	Outlet	P1.005	Hydro-Brake®
	Invert Level (m)	26.650	
	Design Depth (m)	0.950	
	Design Flow (L/s)	10.0	
	Objective	Minimise Upstream Storage Requirements	
	Application	Surface Water Only	
	Sump Available	☒	
	Unit Reference	SHE-0147-1000-0950-1000	
Ex. SW02	Outlet	P4.000	Free Discharge
Ex. SWMS(A)	Outlet	P4.001	Free Discharge
GULLY	Outlet	P3.000	Free Discharge

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
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Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		





Cellular Storage

Type : Cellular Storage

Dimensions

Exceedance Level (m)	28.400
Depth (m)	0.800
Base Level (m)	26.690
Number of Crates Long	23
Number of Crates Wide	5
Number of Crates High	2
Porosity (%)	95
Crate Length (m)	0.5
Crate Width (m)	1
Crate Height (m)	0.4
Total Volume (m³)	44.610

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	P1.003
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	P1.004
Outlet Type	Free Discharge

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
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Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)
P2.000	14.024	Pipe	155.827		0.6	225	28.500	27.500
P2.001	22.616	Pipe	323.081		0.6	225	28.500	27.410
P2.002	18.892	Pipe	27.379		0.6	225	28.500	27.340
P1.000	40.281	Pipe	60.121		0.6	225	28.600	28.000
P1.001	8.274	Pipe	137.892		0.6	225	28.500	27.330
P1.002	8.687	Pipe	20.201		0.6	225	28.500	27.270
P1.005	6.826	Pipe	97.521		0.6	150	28.300	26.650
P1.003	3.477	Pipe	23.179		0.6	225	28.500	26.840
P1.004	1.534	Pipe	38.339		0.6	225	28.400	26.690
P4.000	34.631	Pipe	100.000		0.6	225	28.500	27.170
P4.001	8.092	Pipe	33.207		0.6	225	28.540	26.824
P3.000	7.437	Pipe	5.237		0.6	100	28.500	28.000

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Lock	Flow Restriction (L/s)
P2.000	28.500	27.410	None	
P2.001	28.500	27.340	None	
P2.002	28.300	26.650	None	
P1.000	28.500	27.330	None	
P1.001	28.500	27.270	None	
P1.002	28.500	26.840	None	
P1.005	28.830	26.580	None	10.9
P1.003	28.400	26.690	None	
P1.004	28.300	26.650	None	
P4.000	28.540	26.824	None	
P4.001	28.830	26.580	None	
P3.000	28.830	26.580	None	

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 20/07/2026		
Report Details: Type: Manhole Schedule Storm Phase: Phase (1)		Designed by: DPS	Checked by: EP	
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		HBPW LLP : 43 Bridgegate Retford DN22 7UX		

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
SWMH01	28.500 27.500	Diameter / Length: 1.200					Manhole
E:530223.374 N:118757.530	1.000		{a} P2.000	Pipe	27.500	Diam/Width:225	Not Applicable
SWMH02	28.500 27.410	Diameter / Length: 1.200	{1} P2.000	Pipe	27.410	Diam/Width:225	Manhole
E:530209.376 N:118758.399	1.090		{a} P2.001	Pipe	27.410	Diam/Width:225	Not Applicable
SWMH03	28.500 27.340	Diameter / Length: 1.200	{1} P2.001	Pipe	27.340	Diam/Width:225	Manhole
E:530186.804 N:118759.801	1.160		{a} P2.002	Pipe	27.340	Diam/Width:225	Not Applicable
SWMH04	28.600 28.000	Diameter / Length: 0.600					Manhole
E:530220.178 N:118722.743	0.600		{a} P1.000	Pipe	28.000	Diam/Width:225	Not Applicable
SWMH05	28.500 27.330	Diameter / Length: 0.600	{1} P1.000	Pipe	27.330	Diam/Width:225	Manhole
E:530179.975 N:118725.239	1.170		{a} P1.001	Pipe	27.330	Diam/Width:225	Not Applicable

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 20/07/2026		
Report Details: Type: Manhole Schedule Storm Phase: Phase (1)		Designed by: DPS	Checked by: EP	
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		HBPW LLP : 43 Bridgegate Retford DN22 7UX		

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
SWMH06	28.500 27.270	Diameter / Length: 0.600	{1} P1.001	Pipe	27.270	Diam/Width:225	Manhole
E:530174.498 N:118731.441	1.230		{a} P1.002	Pipe	27.270	Diam/Width:225	Not Applicable
SWMH07	28.500 26.840	Diameter / Length: 1.200	{1} P1.002	Pipe	26.840	Diam/Width:225	Manhole
E:530173.678 N:118740.088	1.660		{a} P1.003	Pipe	26.840	Diam/Width:225	Not Applicable
SWMH08 (HYDROBRAKE)	28.300 26.650	Diameter / Length: 1.200	{1} P2.002	Pipe	26.650	Diam/Width:225	Manhole
E:530168.560 N:118754.897	1.650		{2} P1.004	Pipe	26.650	Diam/Width:225	
			{a} P1.005	Pipe	26.650	Diam/Width:150	Not Applicable
Ex. SWMS	28.830 26.580	Diameter / Length: 1.200	{1} P1.005	Pipe	26.580	Diam/Width:150	Manhole
E:530168.853 N:118761.718	2.250		{2} P4.001	Pipe	26.580	Diam/Width:225	
			{3} P3.000	Pipe	26.580	Diam/Width:100	
							Not Applicable

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 20/07/2026			
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Report Details: Type: Manhole Schedule Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX			

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
Ex. SW02	28.500 27.170	Diameter / Length: 1.200					Manhole
E:530210.941 N:118763.043	1.330		{a} P4.000	Pipe	27.170	Diam/Width:225	Not Applicable
Ex. SWMS(A)	28.540 26.824	Diameter / Length: 1.200	{1} P4.000	Pipe	26.824	Diam/Width:225	Manhole
E:530176.353 N:118764.756	1.716		{a} P4.001	Pipe	26.824	Diam/Width:225	Not Applicable
GULLY	28.500 28.000	Diameter / Length: 0.350					Manhole
E:530170.117 N:118754.389	0.500		{a} P3.000	Pipe	28.000	Diam/Width:100	Not Applicable

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
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Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
ROOF N	SWMH01		Time of Concentration	0.070	100	0	100	0.070
ROOF S	SWMH04		Time of Concentration	0.070	100	0	100	0.070
YARD N	Ex. SW02		Time of Concentration	0.108	100	0	100	0.108
YARD S	GULLY		Time of Concentration	0.029	100	0	100	0.029
TOTAL		0.0		0.278				0.278

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026			
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Report Details: Type: Outfall Details Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX			

Outfalls

Outfall	Outfall Type	Gated	Fixed Surcharged Level (m)	Level Curve
Ex. SWMS	Free Discharge			

3. SUMMARIES OF RESULTS

3.1. 1 IN 2 YEAR STORM EVENTS

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
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Report Title: Rainfall Analysis Criteria	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



Runoff Type	Dynamic
Output Interval (mins)	2
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall

FEH 1-2	Type: FEH
Site Location	GB 530193 118742 TQ 30193 18742
Rainfall Version	2022
Summer	☒
Winter	☒

Return Period

Return Period (years)	Increase Rainfall (%)
2.0	0.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880
2160	4320

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 20/07/2026			
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Report Details: Type: Inflows Summary Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX			



Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
ROOF N	FEH 1-2: 2 years: +0 %: 15 mins: Summer	0.07	16.8	6.536
ROOF S	FEH 1-2: 2 years: +0 %: 15 mins: Summer	0.07	16.8	6.536
YARD S	FEH 1-2: 2 years: +0 %: 15 mins: Summer	0.03	6.8	2.655
YARD N	FEH 1-2: 2 years: +0 %: 15 mins: Summer	0.11	25.8	10.069

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 20/07/2026		
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Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Discharge Volume (m³)	Max. Outflow (L/s)	Status
SWMH01	FEH 1-2: 2 years: +0 %: 15 mins: Summer	28.50 0	27.50 0	27.608	0.108	16.8	0.122	0.000	6.537	16.5	OK
SWMH02	FEH 1-2: 2 years: +0 %: 15 mins: Summer	28.50 0	27.41 0	27.527	0.117	16.5	0.132	0.000	6.526	16.0	OK
SWMH03	FEH 1-2: 2 years: +0 %: 15 mins: Summer	28.50 0	27.34 0	27.400	0.060	16.0	0.068	0.000	6.530	15.8	OK
SWMH04	FEH 1-2: 2 years: +0 %: 15 mins: Summer	28.60 0	28.00 0	28.076	0.076	16.8	0.021	0.000	6.542	16.5	OK
SWMH05	FEH 1-2: 2 years: +0 %: 15 mins: Summer	28.50 0	27.33 0	27.427	0.097	16.5	0.027	0.000	6.529	16.0	OK
SWMH06	FEH 1-2: 2 years: +0 %: 15 mins: Summer	28.50 0	27.27 0	27.329	0.059	16.0	0.017	0.000	6.527	16.0	OK
SWMH07	FEH 1-2: 2 years: +0 %: 15 mins: Summer	28.50 0	26.84 0	26.907	0.067	16.0	0.076	0.000	6.527	15.8	OK
SWMH08 (HYDROBR AKE)	FEH 1-2: 2 years: +0 %: 120 mins: Summer	28.30 0	26.65 0	26.874	0.224	8.6	0.254	0.000	30.233	8.6	Surcharged
Ex. SWMS	FEH 1-2: 2 years: +0 %: 15 mins: Summer	28.83 0	26.58 0	26.648	0.068	36.3	0.000	0.000	20.360	36.3	OK
Ex. SW02	FEH 1-2: 2 years: +0 %: 15 mins: Summer	28.50 0	27.17 0	27.288	0.118	25.8	0.133	0.000	10.072	25.3	OK
Ex. SWMS (A)	FEH 1-2: 2 years: +0 %: 15 mins: Summer	28.54 0	26.82 4	26.914	0.090	25.3	0.102	0.000	10.062	24.9	OK
GULLY	FEH 1-2: 2 years: +0 %: 15 mins: Summer	28.50 0	28.00 0	28.034	0.034	6.8	0.003	0.000	2.655	6.8	OK

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 20/07/2026		
		Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX		





Critical Storm Per Item: Rank By: Max. Flooded Volume

Stormwater Control	Storm Event	Status	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residant Volume (m³)	Total Lost Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)
Cellular Storage	FEH 1-2: 2 years: +0 %: 15 mins: Summer	OK	26.843	26.843	0.153	0.153	26.1	8.368	0.000	0.000	5.3	4.238	81.243

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
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Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
P2.000	FEH 1-2: 2 years: +0 %: 15 mins: Summer	Pipe	SWMH01	SWMH02	28.500	27.608	0.112	6.537	0.8	0.4	16.5	OK
P2.001	FEH 1-2: 2 years: +0 %: 15 mins: Summer	Pipe	SWMH02	SWMH03	28.500	27.527	0.089	6.526	1.1	0.56	16.0	OK
P2.002	FEH 1-2: 2 years: +0 %: 15 mins: Summer	Pipe	SWMH03	SWMH08 (HYDRO BRAKE)	28.500	27.400	0.113	6.530	0.9	0.16	15.8	OK
P1.000	FEH 1-2: 2 years: +0 %: 15 mins: Summer	Pipe	SWMH04	SWMH05	28.600	28.076	0.086	6.542	1.2	0.25	16.5	OK
P1.001	FEH 1-2: 2 years: +0 %: 15 mins: Summer	Pipe	SWMH05	SWMH06	28.500	27.427	0.078	6.529	1.3	0.36	16.0	OK
P1.002	FEH 1-2: 2 years: +0 %: 15 mins: Summer	Pipe	SWMH06	SWMH07	28.500	27.329	0.063	6.527	1.7	0.14	16.0	OK
P1.005	FEH 1-2: 2 years: +0 %: 120 mins: Summer	Pipe	SWMH08 (HYDR OBRAKE)	Ex. SWMS	28.300	26.874	0.066	29.424	1.1	0.48	8.6	Surcharged
P1.003	FEH 1-2: 2 years: +0 %: 15 mins: Summer	Pipe	SWMH07	Cellular Storage	28.500	26.907	0.093	6.527	2.1	0.15	15.8	OK
P1.004	FEH 1-2: 2 years: +0 %: 60 mins: Summer	Pipe	Cellular Storage	SWMH08 (HYDRO BRAKE)	28.400	26.873	0.202	10.210	0.2	0.07	5.6	OK
P4.000	FEH 1-2: 2 years: +0 %: 15 mins: Summer	Pipe	Ex. SW02	Ex. SWMS (A)	28.500	27.288	0.104	10.072	1.4	0.49	25.3	OK
P4.001	FEH 1-2: 2 years: +0 %: 15 mins: Summer	Pipe	Ex. SWMS (A)	Ex. SWMS	28.540	26.914	0.079	10.062	2.0	0.27	24.9	OK
P3.000	FEH 1-2: 2 years: +0 %: 15 mins: Summer	Pipe	GULLY	Ex. SWMS	28.500	28.034	0.051	2.655	1.7	0.25	6.8	OK

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Phase Management Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		





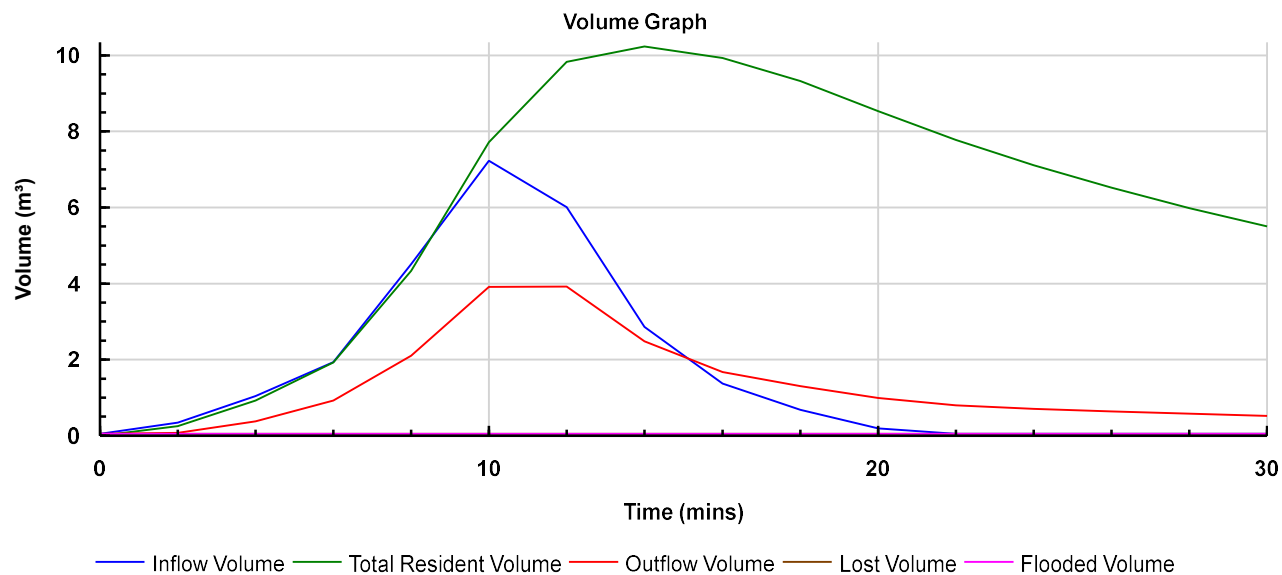
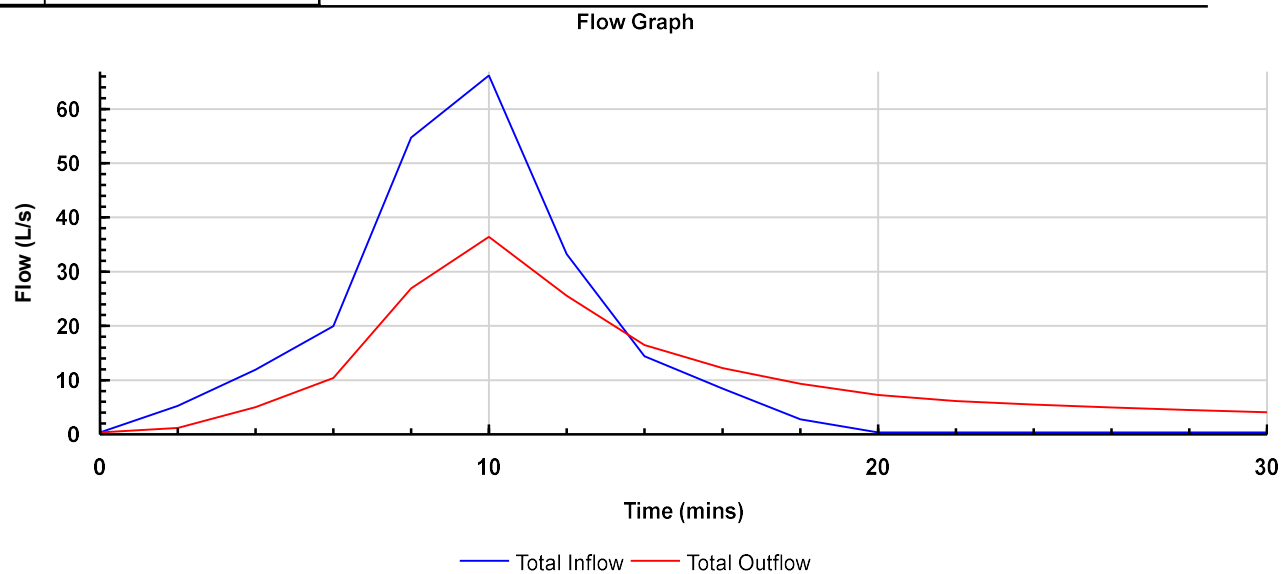
Phase (1)

FEH 1-2: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Ex. SWMS			36.3	20.360
TOTAL	66.2	25.796	36.3	20.360

Graphs



3.2. 1 IN 30 YEAR STORM EVENTS

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Title: Rainfall Analysis Criteria	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



Runoff Type	Dynamic
Output Interval (mins)	2
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall

FEH 1-30	Type: FEH
Site Location	GB 530193 118742 TQ 30193 18742
Rainfall Version	2022
Summer	☒
Winter	☒

Return Period

Return Period (years)	Increase Rainfall (%)
30.0	45.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880
2160	4320

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 20/07/2026	
		Designed by: DPS	Checked by: EP
		Approved By: EP	
Report Details: Type: Inflows Summary Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX	



Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
ROOF N	FEH 1-30: 30 years: +45 %: 15 mins: Summer	0.07	49.8	19.467
ROOF S	FEH 1-30: 30 years: +45 %: 15 mins: Summer	0.07	49.9	19.473
YARD S	FEH 1-30: 30 years: +45 %: 15 mins: Summer	0.03	21.3	8.330
YARD N	FEH 1-30: 30 years: +45 %: 15 mins: Summer	0.11	80.9	31.573

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Junctions Summary Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



Critical Storm Per Item: Rank By: Max. Flooded Volume

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Discharge Volume (m³)	Max. Outflow (L/s)	Status
SWMH01	FEH 1-30: 30 years: +45 %: 15 mins: Summer	28.50 0	27.50 0	27.851	0.351	49.8	0.397	0.000	19.455	48.3	Surcharged
SWMH02	FEH 1-30: 30 years: +45 %: 15 mins: Summer	28.50 0	27.41 0	27.697	0.287	48.3	0.325	0.000	19.457	46.5	Surcharged
SWMH03	FEH 1-30: 30 years: +45 %: 15 mins: Summer	28.50 0	27.34 0	27.447	0.107	46.5	0.121	0.000	19.359	45.9	OK
SWMH04	FEH 1-30: 30 years: +45 %: 15 mins: Summer	28.60 0	28.00 0	28.148	0.148	49.9	0.042	0.000	19.469	49.1	OK
SWMH05	FEH 1-30: 30 years: +45 %: 15 mins: Summer	28.50 0	27.33 0	27.518	0.188	49.1	0.053	0.000	19.455	48.1	OK
SWMH06	FEH 1-30: 30 years: +45 %: 15 mins: Summer	28.50 0	27.27 0	27.382	0.112	48.1	0.032	0.000	19.439	47.8	OK
SWMH07	FEH 1-30: 30 years: +45 %: 15 mins: Summer	28.50 0	26.84 0	27.226	0.386	47.8	0.436	0.000	18.881	46.9	Surcharged
SWMH08 (HYDROBR AKE)	FEH 1-30: 30 years: +45 %: 15 mins: Summer	28.30 0	26.65 0	27.225	0.575	45.9	0.650	0.000	25.245	10.0	Surcharged
Ex. SWMS	FEH 1-30: 30 years: +45 %: 15 mins: Summer	28.83 0	26.58 0	26.764	0.184	100.8	0.000	0.000	53.657	100.8	OK
Ex. SW02	FEH 1-30: 30 years: +45 %: 15 mins: Summer	28.50 0	27.17 0	28.316	1.146	80.9	1.297	0.000	31.539	74.6	Flood Risk
Ex. SWMS (A)	FEH 1-30: 30 years: +45 %: 15 mins: Summer	28.54 0	26.69 0	27.569	0.879	74.6	0.995	0.000	31.560	71.1	Surcharged
GULLY	FEH 1-30: 30 years: +45 %: 15 mins: Summer	28.50 0	28.00 0	28.068	0.068	21.3	0.007	0.000	8.325	21.2	OK

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 20/07/2026			
		Designed by: DPS	Checked by: EP		Approved By: EP
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX			



Critical Storm Per Item: Rank By: Max. Flooded Volume

Stormwater Control	Storm Event	Status	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Total Lost Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)
Cellular Storage	FEH 1-30: 30 years: +45 %: 15 mins: Summer	OK	27.226	27.226	0.536	0.536	80.7	29.266	0.000	0.000	9.6	6.938	34.396

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Connections Summary Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
P2.000	FEH 1-30: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH01	SWMH02	28.500	27.851	0.225	19.455	1.2	1.16	48.3	Surcharged
P2.001	FEH 1-30: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH02	SWMH03	28.500	27.697	0.197	19.457	1.4	1.62	46.5	Surcharged
P2.002	FEH 1-30: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH03	SWMH08 (HYDRO BRAKE)	28.500	27.447	0.225	19.359	1.2	0.46	45.9	OK
P1.000	FEH 1-30: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH04	SWMH05	28.600	28.148	0.168	19.469	1.5	0.73	49.1	OK
P1.001	FEH 1-30: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH05	SWMH06	28.500	27.518	0.150	19.455	1.7	1.09	48.1	OK
P1.002	FEH 1-30: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH06	SWMH07	28.500	27.382	0.210	19.439	2.0	0.41	47.8	OK
P1.005	FEH 1-30: 30 years: +45 %: 30 mins: Summer	Pipe	SWMH08 (HYDRO BRAKE)	Ex. SWMS	28.300	27.362	0.150	27.484	1.1	0.61	11.0	Surcharged
P1.003	FEH 1-30: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH07	Cellular Storage	28.500	27.226	0.225	18.881	2.5	0.43	46.9	Surcharged
P1.004	FEH 1-30: 30 years: +45 %: 60 mins: Summer	Pipe	Cellular Storage	SWMH08 (HYDRO BRAKE)	28.400	27.423	0.225	23.712	0.2	0.12	9.7	Surcharged
P4.000	FEH 1-30: 30 years: +45 %: 15 mins: Summer	Pipe	Ex. SW02	Ex. SWMS (A)	28.500	28.316	0.225	31.539	1.9	1.22	74.6	Flood Risk
P4.001	FEH 1-30: 30 years: +45 %: 15 mins: Summer	Pipe	Ex. SWMS (A)	Ex. SWMS	28.540	27.569	0.225	31.542	1.8	1.15	70.0	Surcharged
P3.000	FEH 1-30: 30 years: +45 %: 15 mins: Summer	Pipe	GULLY	Ex. SWMS	28.500	28.068	0.100	8.325	2.7	0.79	21.2	OK

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Phase Management Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



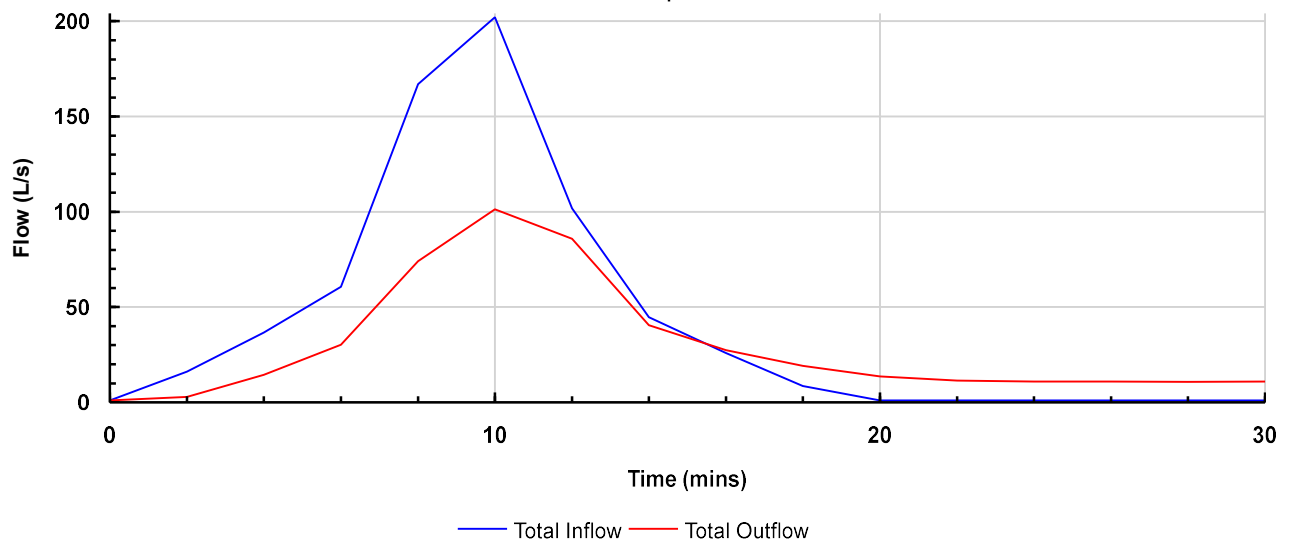
Phase (1)
FEH 1-30: 30 years: Increase Rainfall (%): +45: 15 mins: Summer

Tables

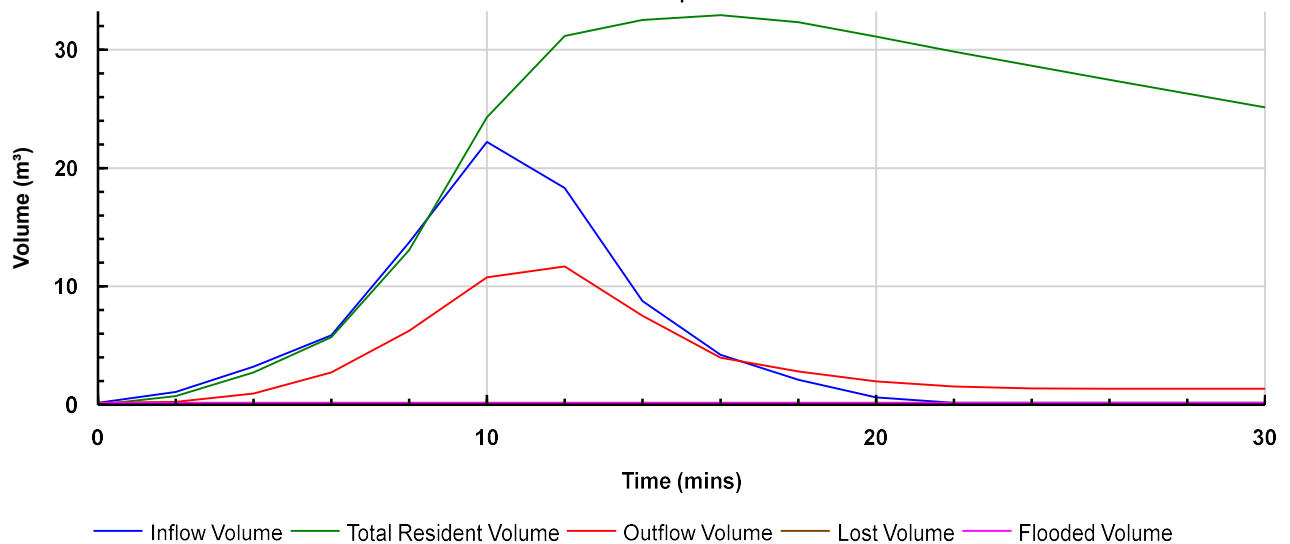
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Ex. SWMS			100.8	53.657
TOTAL	202.0	78.842	100.8	53.657

Graphs

Flow Graph



Volume Graph



3.3. 1 IN 100 YEAR STORM EVENTS

Flooding of 1.252m³ is expected in Ex. SW02, however, in reality it is more likely to back up to gullies located in the car park access road. Puddles with maximum depth of 70mm are expected to form for the duration of approximately 4 minutes as shown in Figure 3-1 & Figure 3-2.

Figure 3-1 Flood depth

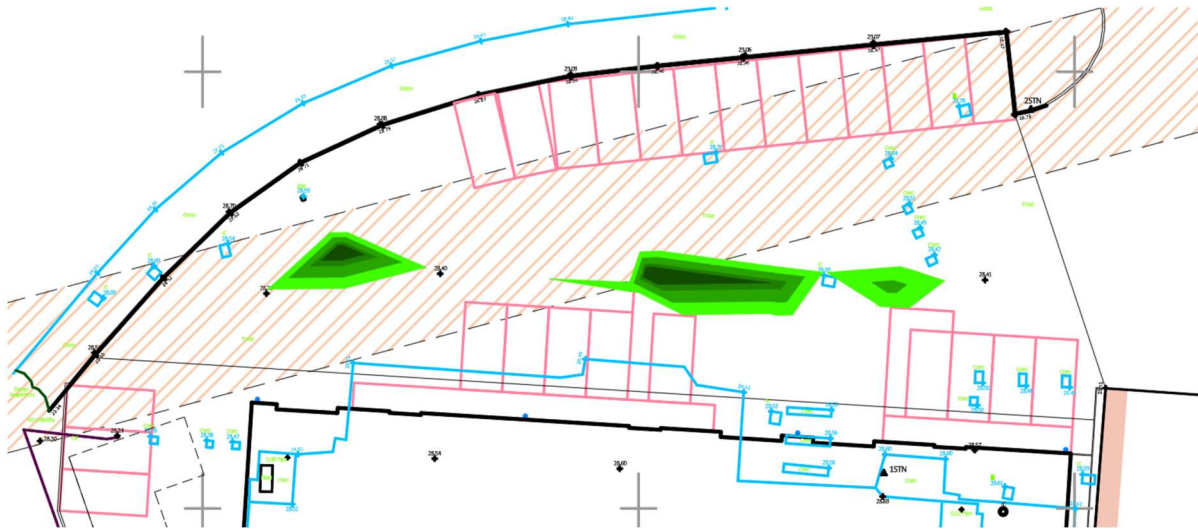


Figure 3-2 Flood event duration

Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m ³)	Flooded Volume (m ³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
2	7.6	0.052	0.059	0.000	6.7
4	17.9	0.081	0.091	0.000	16.8
6	30.2	0.109	0.123	0.000	29.1
8	83.8	0.817	0.924	0.000	68.8
10	101.5	1.331	2.757	1.252	77.6
12	51.7	1.331	2.687	1.183	77.6
14	22.2	0.115	0.131	0.000	32.3
16	12.6	0.071	0.080	0.000	13.6
18	3.9	0.043	0.049	0.000	5.2
20	0.1	0.019	0.021	0.000	1.0
22	0.0	0.007	0.008	0.000	0.1
24	0.0	0.004	0.004	0.000	0.0
26	0.0	0.002	0.003	0.000	0.0
28	0.0	0.002	0.002	0.000	0.0
30	0.0	0.002	0.002	0.000	0.0

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Title: Rainfall Analysis Criteria	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



Runoff Type	Dynamic
Output Interval (mins)	2
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall

FEH 1-100	Type: FEH
Site Location	GB 530193 118742 TQ 30193 18742
Rainfall Version	2022
Summer	☒
Winter	☒

Return Period

Return Period (years)	Increase Rainfall (%)
100.0	45.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880
2160	4320

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 20/07/2026			
		Designed by: DPS	Checked by: EP		Approved By: EP
Report Details: Type: Inflows Summary Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX			



Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
ROOF N	FEH 1-100: 100 years: +45 %: 15 mins: Summer	0.07	62.6	24.471
ROOF S	FEH 1-100: 100 years: +45 %: 15 mins: Summer	0.07	62.6	24.477
YARD S	FEH 1-100: 100 years: +45 %: 15 mins: Summer	0.03	26.8	10.473
YARD N	FEH 1-100: 100 years: +45 %: 15 mins: Summer	0.11	101.5	39.691

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 20/07/2026		
Report Details: Type: Junctions Summary Storm Phase: Phase (1)		Designed by: DPS	Checked by: EP	
		Approved By: EP		
		HBPW LLP : 43 Bridgegate Retford DN22 7UX		



Critical Storm Per Item: Rank By: Max. Flooded Volume

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Discharge Volume (m³)	Max. Outflow (L/s)	Status
SWMH01	FEH 1-100: 100 years: +45 %: 15 mins: Summer	28.500	27.500	28.123	0.623	62.6	0.705	0.000	24.452	60.2	Surcharged
SWMH02	FEH 1-100: 100 years: +45 %: 15 mins: Summer	28.500	27.410	27.882	0.472	60.2	0.534	0.000	24.466	58.4	Surcharged
SWMH03	FEH 1-100: 100 years: +45 %: 15 mins: Summer	28.500	27.340	27.464	0.124	58.4	0.141	0.000	24.350	57.9	OK
SWMH04	FEH 1-100: 100 years: +45 %: 15 mins: Summer	28.600	28.000	28.174	0.174	62.6	0.049	0.000	24.474	62.2	OK
SWMH05	FEH 1-100: 100 years: +45 %: 15 mins: Summer	28.500	27.330	27.588	0.258	62.2	0.073	0.000	24.465	61.9	Surcharged
SWMH06	FEH 1-100: 100 years: +45 %: 15 mins: Summer	28.500	27.270	27.401	0.131	61.9	0.037	0.000	24.373	64.1	OK
SWMH07	FEH 1-100: 100 years: +45 %: 15 mins: Summer	28.500	26.840	27.394	0.554	64.1	0.627	0.000	23.564	59.5	Surcharged
SWMH08 (HYDROBRAKE)	FEH 1-100: 100 years: +45 %: 15 mins: Summer	28.300	26.650	27.393	0.743	57.9	0.840	0.000	28.849	10.0	Surcharged
Ex. SWMS	FEH 1-100: 100 years: +45 %: 15 mins: Summer	28.830	26.580	26.767	0.187	111.9	0.000	0.000	63.112	111.9	OK
Ex. SW02	FEH 1-100: 100 years: +45 %: 15 mins: Summer	28.500	27.170	28.501	1.331	101.5	2.757	1.252	39.607	77.6	Flood
Ex. SWMS (A)	FEH 1-100: 100 years: +45 %: 15 mins: Summer	28.540	26.690	27.722	1.032	77.6	1.167	0.000	39.641	77.6	Surcharged
GULLY	FEH 1-100: 100 years: +45 %: 15 mins: Summer	28.500	28.000	28.126	0.126	26.8	0.012	0.000	10.466	24.4	Surcharged

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 20/07/2026		
		Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX		



Critical Storm Per Item: Rank By: Max. Flooded Volume

Stormwater Control	Storm Event	Status	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residant Volume (m³)	Total Lost Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)
Cellular Storage	FEH 1-100: 100 years: +45 %: 15 mins: Summer	OK	27.394	27.394	0.704	0.704	104.7	38.436	0.000	0.000	9.0	5.774	13.841

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Connections Summary Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
P2.000	FEH 1-100: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH0 1	SWMH0 2	28.500	28.123	0.225	24.452	1.5	1.45	60.2	Surcharged
P2.001	FEH 1-100: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH0 2	SWMH0 3	28.500	27.882	0.225	24.466	1.5	2.04	58.4	Surcharged
P2.002	FEH 1-100: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH0 3	SWMH0 8 (HYDRO BRAKE)	28.500	27.464	0.225	24.350	1.5	0.58	57.9	OK
P1.000	FEH 1-100: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH0 4	SWMH0 5	28.600	28.174	0.216	24.474	1.6	0.93	62.2	OK
P1.001	FEH 1-100: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH0 5	SWMH0 6	28.500	27.588	0.195	24.465	1.7	1.4	61.9	Surcharged
P1.002	FEH 1-100: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH0 6	SWMH0 7	28.500	27.401	0.225	24.373	2.0	0.55	64.1	OK
P1.005	FEH 1-100: 100 years: +45 %: 60 mins: Summer	Pipe	SWMH0 8 (HYDRO BRAKE)	Ex. SWMS	28.300	28.290	0.150	60.372	1.2	0.61	10.9	Flood Risk
P1.003	FEH 1-100: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH0 7	Cellular Storage	28.500	27.394	0.225	23.564	2.5	0.55	59.5	Surcharged
P1.004	FEH 1-100: 100 years: +45 %: 60 mins: Summer	Pipe	Cellular Storage	SWMH0 8 (HYDRO BRAKE)	28.400	28.291	0.225	19.509	0.3	0.13	11.2	Surcharged
P4.000	FEH 1-100: 100 years: +45 %: 15 mins: Winter	Pipe	Ex. SW02	Ex. SWMS (A)	28.500	28.500	0.225	39.655	2.0	1.27	77.7	Flood
P4.001	FEH 1-100: 100 years: +45 %: 15 mins: Summer	Pipe	Ex. SWMS (A)	Ex. SWMS	28.540	27.722	0.225	39.625	2.0	1.28	77.7	Surcharged
P3.000	FEH 1-100: 100 years: +45 %: 15 mins: Summer	Pipe	GULLY	Ex. SWMS	28.500	28.126	0.100	10.466	3.1	0.91	24.4	Surcharged

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 20/07/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Phase Management Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



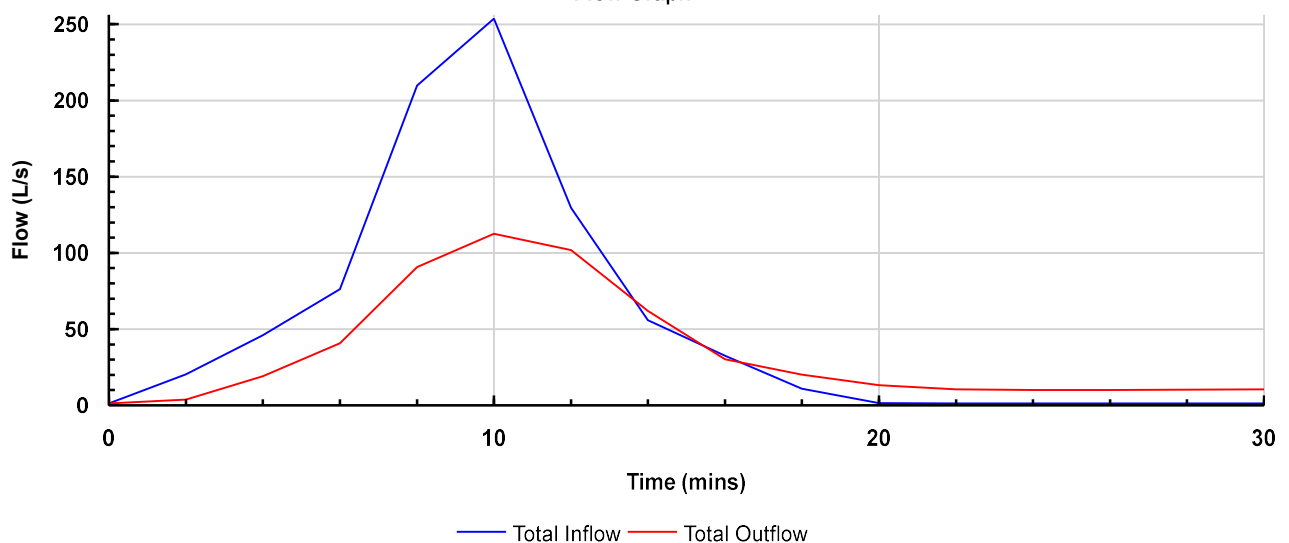
Phase (1)
FEH 1-100: 100 years: Increase Rainfall (%): +45: 15 mins: Summer

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Ex. SWMS			111.9	63.112
TOTAL	253.6	99.112	111.9	63.112

Graphs

Flow Graph



Volume Graph

